AMENDMENTS TO THE CLAIMS

Please amend the claims as indicated in the following listing of all claims:

1. (Currently amended) A method for allocating a plurality of resources in an electronic system, comprising:

allocating a first group of one or more of the resources in accordance with first requests for the resources, the first group being allocated for a particular time period; and

subsequently allocating a second group of one or more of the resources for the particular time period in accordance with regular requests, ~~the first and second group of resources being mutually exclusive~~

wherein the resources requested comprise data paths through a communication network, the data paths coupling initiator nodes of the network to target nodes of the network.

2. (Cancelled)

3. (Original) The method as recited in claim 2 further comprising:

receiving the first requests for the first group of resources in a centralized scheduler, the centralized scheduler residing in one of a plurality of requesters on the communication network; and

receiving the regular requests at a centralized arbiter separate from the centralized scheduler.

4. (Original) The method as recited in claim 1 wherein the first requests include requests for one or more resources on a periodic basis.

5. (Original) The method as recited in claim 4 wherein the first requests for one or more resources on a periodic basis are for transfer of at least one of multicast data and isochronous data.

6. (Original) The method as recited in claim 4 wherein the regular requests include non-periodic data.

7. (Original) The method as recited in claim 1 wherein the first requests are for transfer of at least one of multicast data and isochronous data.

8. (Original) A network system comprising:

a data transport medium attached to a plurality of sources and a plurality of targets;

an arbiter coupled to receive first requests for transfers from one or more of the sources to one or more of the targets during a time slot on the data transport medium and coupled to receive regular requests from the sources for transfers from one or more of the sources to one or more of the targets during the time slot, the arbiter allocating the targets to the sources in accordance with the first requests and then in accordance with the regular requests.

9. (Original) The network system as recited in claim 8 wherein the first requests are supplied to the arbiter as a precalculated schedule.

10. (Original) The network system as recited in claim 9 wherein the precalculated schedule supplied to the arbiter is always conflict free.

11. (Original) The network system as recited in claim 9 further comprising a centralized scheduler, responsive to preallocation requests for pre-allocated slots on the data transport medium to generate the precalculated schedule for the preallocation requests.

12. (Previously presented) The network system as recited in claim 11 wherein the centralized scheduler is implemented as a software executable on a node coupled as one of the sources on the network system.

13. (Original) The network system as recited in claim 9 wherein the precalculated schedule includes a scheduled transfer of isochronous traffic.

14. (Original) The network system as recited in claim 13 wherein the precalculated schedule includes a scheduled transfer of periodic traffic.

15. (Original) The network system as recited in claim 9 wherein the precalculated schedule includes a scheduled transfer of multicast data in which the data is transferred from a single source to a plurality of targets.

16. (Original) The network system as recited in claim 15 wherein the multicast data is part of a scheduled periodic multicast transfer.

17. (Previously presented) The network system as recited in claim 8 wherein the transport medium includes a synchronous switch.

18. (Original) The network system as recited in claim 8 wherein the arbiter receives preallocation requests for pre-allocated slots and regular requests for slots on the data transport medium, the arbiter giving priority to preallocation requests in allocating resources.

19. (Original) The network system as recited in claim 18 wherein the arbiter receives a vector including the preallocated requests and the regular requests from the sources on the network.

20. (Original) The network system as recited in claim 19 wherein the sources receive the preallocated requests from a centralized scheduler of the preallocated requests.

21. (Currently amended) An arbitration apparatus for arbitrating requests from a plurality of requesters for a plurality of resources, comprising:

means for receiving regular requests for resources from the requesters;

means for receiving a precalculated schedule; ~~and~~

means for allocating resources by ~~giving requests represented in the precalculated schedule priority over the regular requests in allocating resources~~ allocating during a first arbitration phase requests for the resources based on the

precalculated schedule and allocating during a second arbitration phase the regular requests for the resources; and

wherein the resources requested comprise data paths through a communication network, the data paths coupling initiator nodes of the network to target nodes of the network.

22. (Currently amended) The arbitration apparatus as recited in claim 21 wherein ~~the resources are input and output nodes of a communication network and a transport mechanism coupled to the requesters and resources includes~~ the data path comprises a network switch.

23. (Currently amended) A method for allocating a plurality of resources in a communication network, comprising:

during a first arbitration phase, reserving a first portion of the resources for a particular time period on the network in response to requests for scheduled transfers;

during a second arbitration phase allocating a second portion of the resources in response to regular requests; ~~and~~

transferring data across the communication network according to the allocating of resources;

wherein the resources are slots in the communication network connecting an input port to one or more output ports in a network switch.

24. (Original) The method as recited in claim 23 wherein the first portion is reserved in a scheduler separate from an arbiter, the arbiter allocating the second portion, the scheduler providing a schedule to the arbiter indicating the reserved first portion.

25. (Original) The method as recited in claim 24 wherein the schedule is guaranteed not to have conflicts.

26. (Original) The method as recited in claim 24 wherein the schedule has conflicts in requests for the first portion of resources.

27. (Cancelled)

28. (Original) The method as recited in claim 23 wherein the regular requests are for resources during a single slot in the communication network and wherein the requests for scheduled transfers include requests for periodic slots on the network.

29. (Original) The method as recited in claim 28 wherein the requests for periodic slots are for transfer of at least one of multicast data and isochronous data.

30. (Original) The method as recited in claim 28 wherein the first portion of the resources reserved are for transferring at least one of multicast data and isochronous data across the communication network.

31. (Currently amended) A method for allocating a plurality of resources in an electronic system, comprising:

allocating a first group of one or more of the resources in accordance with first requests for the resources, the first group being allocated for a particular time period; ~~and~~

subsequently allocating a second group of one or more of the resources for the particular time period in accordance with second requests~~, the first and second group of resources being mutually exclusive~~; and

wherein the resources requested comprise data paths through a communication network, the data paths coupling initiator nodes of the network to target nodes of the network.

32. (Previously presented) The method as recited in claim 31 further comprising:

receiving the first requests for the first group of resources in a centralized scheduler, the centralized scheduler residing in one of a plurality of requesters on the communication network; and

receiving the second requests at a centralized arbiter separate from the centralized scheduler.

33. (Previously presented) The method as recited in claim 31 wherein the first requests include requests for one or more resources on a periodic basis and the second requests include non-periodic data.

34. (Previously presented) The method as recited in claim 31 wherein the first requests are for transfer of at least one of multicast data and isochronous data.

35. (Previously presented) A network system comprising:

a data transport medium attached to a plurality of sources and a plurality of targets;

an arbiter coupled to receive first requests for transfers from one or more of the sources to one or more of the targets during a time slot on the data transport medium and coupled to receive second requests from the sources for transfers from one or more of the sources to one or more of the targets during the time slot, the arbiter allocating the targets to the sources in accordance with the first requests and then in accordance with the second requests.

36. (Previously presented) The network system as recited in claim 35 wherein the first requests are supplied to the arbiter as a precalculated schedule.

37. (Currently amended) The network system as recited in claim 36 further comprising a centralized scheduler[[,]] responsive to preallocation requests for pre-allocated slots on the data transport medium to generate the precalculated schedule for the preallocation requests.

38. (New) A method for allocating a plurality of data paths through a switch in an electronic system comprising:

preallocating for a time period, a first group of a plurality of data paths through a switch in response to corresponding periodic requests from at least one initiator node of a network for connection to at least one corresponding target node of the network; and

allocating for the time period, a second group of the plurality of data paths through the switch in response to corresponding non-periodic requests from at least one initiator node of the network for connection to at least one corresponding target node of the network;

wherein the data paths couple input ports of the switch to output ports of the switch, the initiator nodes being coupled to respective input ports of the switch and the target nodes being coupled to respective output ports of the switch.